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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/541,983

07/11/2005

Willem Potze

NL 030022

8083

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7590

04/30/2008

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

FREJD, RUSSELL WARREN

ART UNIT

PAPER NUMBER

2128

MAIL DATE

DELIVERY MODE

04/30/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/541,983	<b>Applicant(s)</b> POTZE	
	<b>Examiner</b> Russell Frejd	<b>Art Unit</b> 2128	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Examination of Application #10/541,983***

1. Claims 1-12 of application 11/541,983, filed on 11-July-2005, are pending in the application. The examiner respectfully thanks applicant for the amendment received 5-February-2008, and withdraws the objections to the Abstract and the specification, as well as the rejection under 102. The examiner respectfully maintains the rejection under 101 as described below.

***Claim Rejections under 35 U.S.C. § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.

2.1 Claims 1-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The invention claims reconstructing a surface of an object.

2.2 Specifically, the claimed subject matter does not produce a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather than a result that may be interpreted to be abstract in nature as, for example, a thought, a computation, or manipulated data. More specifically, the claimed subject matter provides for: "the object being represented by a 2-dimensional grid of measurements, where for each grid point the measurements include corresponding information on a first slope of the surface in a first direction and a second slope of the surface in a different second direction; the method including selecting a 2-dimensional part of the grid and fitting a corresponding part of the surface to the measurements of all grid points in the selected part, where the fitting for each grid point of the selected part is based on both the corresponding first and second slope

information.” This produced result remains in the abstract and, thus, fails to achieve the required status of having real world value, because claims 1-12 are determined to be steps pertaining to a mathematical algorithm, converting one set of numbers into another set of numbers, whereby the method does not manipulate appropriate subject matter, and thus cannot constitute a statutory process (MPEP Section 2106.02).

**2.3** The examiner respectfully appreciates the explanation utilizing the Yi reference cited by the examiner, as being representative of a real world application of the presently claimed invention. The teaching that “surface reconstruction is necessary to derive a complete representation of a surface from sparse noisy sets of geometric information, such as depth, orientation or other sources of information”, in order to provide “an intermediate representation to bridge the gap between sensor data and symbolic descriptions”, was enlightening. However, the examiner respectfully notes the following:

a) Nowhere in the presently claimed invention, and especially in independent claims 1, 7, 11 and 12, are there any claimed steps in regard to “deriving a complete representation of a surface from sparse noisy sets of geometric information.”

b) What is present in the independent claims, in regard to the “method for reconstructing a surface of an object” (as shown on line 1, and regarded by the examiner as the preamble to the claims), are “grid measurements” and the “fitting (of) a corresponding part of the surface to the grid measurements.” Furthermore, the language in claims 2 and 3, and the latter portion of claim 11, clearly indicate that the “fitting is performed through a least-square minimization operation” which “solves an equation that describes a shape of a soap film loaded with a pressure field equal to a divergence of a slope vector including the first and second slope

information.” The examiner respectfully asks applicant to provide additional clarification as to how the claimed “grid measurements” and the “fitting” process are not a computation, or manipulated data, that lacks a claimed real world application result.

**2.4** Furthermore, claim 6 is determined to not meet the criteria for a statutory process due to the description on page 12 of the specification, wherein “the computer program product may be stored/distributed on a suitable medium, including wireless telecommunication systems.” The examiner respectfully posits that a reasonable interpretation of this definition of the computer program product could be described as encompassing a wireless distribution medium that encodes a data signal. In view of the guidelines for 101 subject matter, the wireless medium, having software for reconstructing a surface of an object, does not manipulate appropriate subject matter, and thus cannot constitute a statutory process under 35 U.S.C. § 101.

### ***Allowed Claims***

**3.** Claims 1-12 are deemed allowable over the prior art of record at this time, pending resolution of any rejections noted above, because the prior art does not specifically disclose the claimed method for deriving a reconstruction result (i.e. reconstructing a surface of an object).

### ***Response Guidelines***

**4.** A shortened statutory period for response to this action is set to expire **3 (three) months and 0 (zero) days** from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02, 710.02(b)).

**4.1 Any response to the Examiner in regard to this non-final action should be**

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**directed to:** Russell Frejd, telephone number (571) 272-3779, Monday-Friday from 0530 to 1400 ET, **or** the examiner's supervisor, Kamini Shah, telephone number (571) 272-2279. Inquires of a general nature or relating to the status of this application should be directed to the TC2100 Group Receptionist (571) 272-2100.

**mailed to:** Commissioner of Patents and Trademarks  
P.O. Box 1450, Alexandria, VA 22313-1450

**or faxed to:** (571) 273-8300

Hand-delivered responses should be brought to the Customer Service Window, Randolph Building, 401 Dulany Street, Alexandria, VA, 22314.

**Date:** 28-April-2008

/Russell Frejd/  
Primary Examiner AU 2128